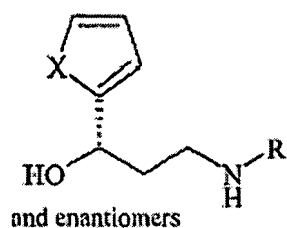


Amendments To The Claims

This Listing Of Claims will replace all prior versions, and listings, of the claims in the application.

Listing of the Claims:

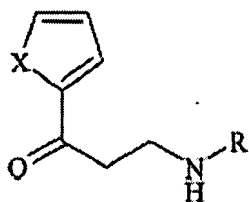
Claim 1 (Currently Amended): A process for the preparation of a chiral compound of formula:



I

wherein X represents S or O, and R represents C₁₋₆-alkyl, C₃₋₈-cycloalkyl, aryl or aralkyl, each aryl or aralkyl being optionally further substituted with one or more C₁₋₄-alkyl C₁₋₄-alkyl groups and/or halogen atoms,

which process comprises the asymmetric hydrogenation of a compound of formula:

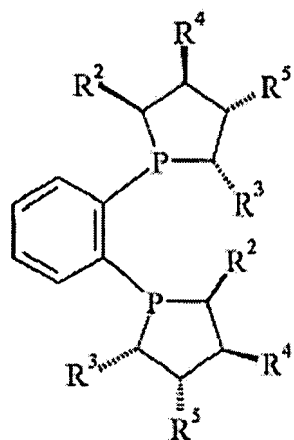


II,

wherein X and R are as defined above,

in the presence of a transition metal complex of a chiral bidentate phosphine ligand and, optionally, a base.

Claim 2 (Previously Presented): The process of claim 1 wherein the chiral bidentate phosphine ligand is a compound of formula:

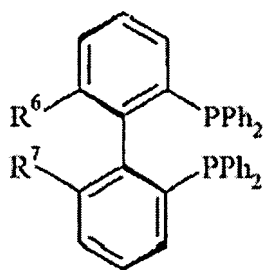


III,

and enantiomers

wherein R^2 and R^3 are methyl, ethyl or isopropyl, and wherein R^4 and R^5 are hydrogen or R^4 and R^5 together form an isopropylidenedioxy group.

Claim 3 (Previously Presented): The process of claim 1, wherein the chiral bidentate phosphine ligand is a compound of formula:



IV,

and enantiomers

wherein R^6 and R^7 are methoxy or ethoxy or wherein R^6 and R^7 together form a 1,3-propylidenedioxy or a 1,4-butyldenedioxy group.

Claim 4 (Original): The process of claim 1, wherein the chiral bidentate phosphine ligand is selected from the group consisting of (S,S)-Me-DuPhos, (S,S)-Et-DuPhos, (S,S,S,S)-Me-KetalPhos and (S)-C4-TunaPhos.

Claim 5 (Previously Presented): The process of claim 4, wherein the transition metal is Ru or Rh.

Claim 6 (Currently Amended): The process of claim 5, wherein the transition metal complex of the chiral bidentate phosphine ligand comprises at least one ~~fiene~~ diene, alkene or arene as stabilizing ligand.

Claim 7 (Previously Presented): The process of claim 6, wherein the transition metal complex of the chiral bidentate phosphine ligand comprises at least one stabilizing ligand selected from the group consisting of 1,5-cyclooctadiene and p-cymene.

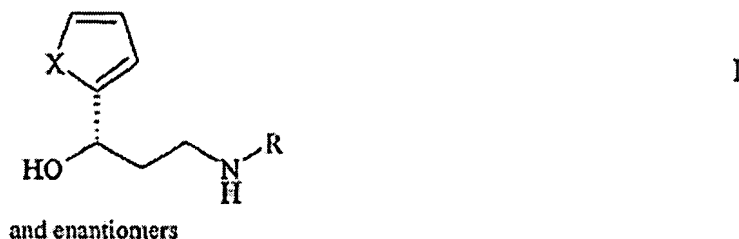
Claim 8 (Previously Presented): The process of claim 7, wherein the counterion of the transition metal complex of the chiral bidentate phosphine ligand is selected from the group consisting of C1^- , BF_4^- , AsF_6^- , SbF_6^- and triflate.

Claim 9 (Previously Presented): The process of claim 8, wherein the catalyst is prepared by mixing a transition metal complex of the formula $[\text{Rh}(\text{cod})_2]^+\text{BF}_4^-$ with a chiral bidentate phosphine selected from the group consisting of (S,S)-Me-DuPhos, (S,S)-Et-DuPhos and (S,S,S,S)-Me-KetalPhos.

Claim 10 (Previously Presented): The process of claim 9, wherein the base is a hydroxide, a methanolate or an ethanolate of lithium, sodium or potassium or a mixture of said bases.

Claim 11 (Previously Presented): The process of claim 10, wherein the hydrogen pressure during the reaction is in the range of 1 to 60 bar.

Claim 12 (Withdrawn): A compound of formula:



or an addition salt of a proton acid, of said compound of formula 1, wherein X represents S or O, and R represent C₁₋₆-alkyl, C₃₋₈-cycloalkyl or benzyl with the exception of compounds wherein X is S and R is methyl.

Claim 13 (Previously Presented): The process of claim 1, wherein the transition metal is Ru or Rh.

Claim 14 (Currently Amended): The process of claim 1, wherein the transition metal complex of the chiral bidentate phosphine ligand comprises at least one ~~fiene~~ diene, alkene or arene as stabilizing ligand.

Claim 15 (Previously Presented): The process of claim 14, wherein the transition metal complex of the chiral bidentate phosphine ligand comprises at least one stabilizing ligand selected from the group consisting of 1,5-cyclooctadiene and p-cymene.

Claim 16 (Previously Presented): The process of claim 1, wherein the counterion of the transition metal complex of the chiral bidentate phosphine ligand is selected from the group consisting of C₁⁻, BF₄⁻, AsF₆⁻, SbF₆⁻ and triflate.

Claim 17 (Previously Presented): The process of claim 1, wherein the catalyst is prepared by mixing a transition metal complex of the formula $[\text{Rh}(\text{cod})_2]^+\text{BF}_4^-$ with a chiral bidentate phosphine selected from the group consisting of (S,S)-Me-DuPhos, (S,S)-Et-DuPhos and (S,S,S,S)-Me-KetalPhos.

Claim 18 (Previously Presented): The process of claim 1, wherein the base is a hydroxide, a methanolate or an ethanolate of lithium, sodium or potassium or a mixture of said bases.

Claim 19 (Previously Presented): The process of claim 11, wherein the hydrogen pressure during the reaction is in the range of 10 to 30 bar.

Claim 20 (Previously Presented): The process of claim 1, wherein the hydrogen pressure during the reaction is in the range of 1 to 60 bar.

Claim 21 (Previously Presented): The process of claim 20, wherein the hydrogen pressure during the reaction is in the range of 10 to 30 bar.

Claim 22 (Currently Amended): The process of claim 1, wherein X in the compound of formula II and the chiral compound of formula I is S, and R is hydrogen, C₁₋₄-alkyl, C₃₋₈-cycloalkyl, aryl or aralkyl.